

## ABSTRACT

For high track density recording, tighter reader and writer track width control are essential. This has been achieved by using a plated NiPd write gap which is self-aligned with a plated 23 KG pole material. Heat dissipation by the writer is thus improved since alumina has been replaced with nonmagnetic metal materials, such as Ru, leading to less pole tip protrusion which in turn leads to better writer track width control